

REMARKS/ARGUMENTS

In the pending Office Action, the Examiner rejected Claims 1-39, which were the claims as originally filed. By this Amendment and Response, Applicants have amended Claims 1, 2, 4, 5, 9, 10, 12, 13, 17, 19, 20, 22, 25, 27, 28, 30 and 39. Claims 1-39 are now pending in this application.

A. Claims 1-5, 8 and 39

The Examiner rejected Claims 1-5, 8 and 39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,460,798 ("Klopfert"). The Examiner stated that Klopfert discloses asymmetrical bisphenols, such as 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane. These "asymmetrical" bisphenols disclosed by Klopfert have just two aryl rings and the Klopfert reference to "asymmetrical" refers to different constituent groups on the two aryl rings. See, e.g., Klopfert, Abstract, Col.2, ll.3-17.

Applicants' Claims 1-5 and 8 are directed to a different composition. For example, in independent Claim 1, Applicants recite a bisphenol of a certain formula, generally summarized as an aryl unit with a hydroxyl end group, a spacer group and a biaryl unit with a hydroxyl end group. Such a bisphenol may be considered "asymmetrical" in that the spacer group connects an aryl unit to a biaryl unit. See, e.g., Applicants' Specification, p.5, l.17 - p.6, l.7. However, nothing in Klopfert discloses or suggests such a composition. The dependent Claims 2-5 and 8 add additional limitations not shown or disclosed by Klopfert.

B. Claims 6-8

The Examiner rejected Claims 6-8 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,290,656 (“Uetani”). The Examiner stated that Uetani discloses the use of 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane and derivatives thereof to prepare a resin composition. Uetani discloses “asymmetrical” bisphenols in the sense of two aryl rings, separated by a spacer group, with different constituents on the two aryl rings. For example, Uetani discloses an asymmetrical composition having a total of three hydroxyl groups disposed over two aryl rings.

Again, Applicants’ Claims 6-8 are directed to a different composition. Each of these claims recite “the bisphenol of Claim 1,” which is directed to a bisphenol of a certain formula, generally summarized as an aryl unit with a hydroxyl end group, a spacer group and a biaryl unit with a hydroxyl end group. Nothing in Uetani discloses or suggests the use of such a composition to prepare a resin.

C. Claims 9-16

The Examiner rejected Claims 9-16 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,841,009 (“Kelsey”). The Examiner stated that Kelsey discloses substantially linear monomeric compositions and noted examples of preferred substantially linear monomeric compositions. Although Kelsey discloses a variety of such linear compositions, including generally two biaryl units separated by certain spacer groups, the spacer groups between the biaryl units have both 1) “a substituted or unsubstituted aromatic or heteroaromatic or cycloaliphatic group having from 5 to about 20 carbon atoms,” and 2) “a substituted or unsubstituted divalent group of the

formula $-R^5 = R^6$ - wherein R^5 and R^6 are individually carbon, nitrogen, phosphorous or silicon.”

See Kelsey, Col.2, ll.21-39.

Applicants’ Claims 9-16 are directed to a different composition having different spacer groups, among other things. As set forth in independent Claim 9, Applicants claim a bisphenol of a certain formula, generally summarized as a biaryl unit having a hydroxyl end group, a spacer selected from a certain group and a second biaryl unit having a hydroxyl end group. Unlike Kelsey, the bisphenol of Claim 9 does not recite a spacer having both 1) an aromatic, heteroaromatic or cycloaliphatic group and 2) a divalent group having carbon, nitrogen, phosphorous or silicon. Rather, independent Claim 9 recites a different group from which the spacer is selected. Additionally, dependent Claims 10-16 add further limitations not disclosed or suggested by Kelsey. For example, Claims 10 and 13 recite that the spacer group is selected from certain more specific compositions, none of which are disclosed or suggested by Kelsey. Also, Claim 12 recites that the hydroxyl end groups are bonded to a terminal aryl group at a position selected from the group consisting of a meta position and an ortho position, in contrast to Kelsey’s substantially linear compositions. Kelsey does not disclose or suggest the compositions of Applicants’ Claims 9-16.

Additionally, the Examiner rejected Claims 9-16 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,319,149 (“Bendler”). The Examiner stated that Bendler generally discloses Bis[4-(4-hydroxyphenyl)-phenyl]alkanes, and specifically discloses 2,2-bis[4-(4-hydroxyphenyl)-phenyl]-propane. However, Bendler’s disclosure is limited to certain, specific compositions, where the

spacer group is R-C-R, with each R a C₁₋₄ primary alkyl or a C₆-C₁₀ cycloalkyl radical. See, e.g., Bendler, Col.1, ll.37-49, Col.3, l.35, Claim 1.

Applicants' Claims 9-16 are directed to a different composition. As set forth above, independent Claim 9 recites a spacer group selected from a group not disclosed or suggested by Bendler. Dependent Claims 10 and 13 recite more specific spacer groups, dependent Claim 12 recites that the hydroxyl end groups are bonded to a terminal aryl group at a position selected from the group consisting of a meta position and an ortho position, and the other dependent claims add further limitations not disclosed or suggested by Bendler.

D. Claims 17-24

The Examiner rejected Claims 17-24 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,055,096 ("Michihata"). The Examiner apparently cited Michihata for the depiction of a certain composition shown in Column 7, lines 10-15. That composition may arguably be characterized as 1) a biaryl unit with no end group whatsoever, 2) a spacer group of C=O, and 3) an aryl unit with two end groups, a hydroxyl group and a carboxylic acid group. Alternatively, one may arguably characterize that composition as 1) an aryl unit with an aryl end group, 2) a spacer group of C=O, and 3) an aryl unit with two end groups, a hydroxyl group and a carboxylic acid group.

In any event, Applicants' Claims 17-24 are directed to a different composition. As set forth in independent Claim 17, Applicant recites a composition as shown, but generally described as an aryl unit substituted with an end group Y, a spacer group X and a biaryl unit substituted with an end group Y. Michitata simply does not disclose or suggest such a composition. In addition, dependent

Claim 18 recites more specific end groups that again are not disclosed or suggested by Michihata, Claim 19 recites more specific spacer groups not disclosed or suggested by Michihata, and Claim 22 recites that hydroxyl end groups are bonded to a terminal aryl group at a position selected from the group consisting of a meta position and an ortho position. Michihata does not disclose or suggest the compositions of Applicants' Claims 17-24.

E. Claims 25-32

The Examiner rejected Claims 25-32 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,841,009 ("Kelsey"). The Examiner stated that Kelsey discloses substantially linear monomeric compositions and concluded that a specific monomer anticipated Claims 25-32. As set forth above, although Kelsey discloses a variety of variations of such compositions, generally including two biaryl units separated by certain spacer groups, the spacer groups between the biaryl units comprise both 1) "a substituted or unsubstituted aromatic or heteroaromatic or cycloaliphatic group having from 5 to about 20 carbon atoms," and 2) "a substituted or unsubstituted divalent group of the formula -R =R - wherein R and R are individually carbon, nitrogen, phosphorous or silicon." See Kelsey, Col.2, ll.21-39.

As set forth in independent Claim 25, Applicants recite a bisphenol of a certain formula, generally summarized as a biaryl unit having an end group, a spacer selected from a certain group and a second biaryl unit having an end group. Unlike the spacer of Kelsey, the composition of Claim 25 does not recite a spacer having both an aromatic, heteroaromatic or cycloaliphatic group and a divalent group having carbon, nitrogen, phosphorous or silicon. Rather, Claim 25 recites, among

other things, a different group from which the spacer is selected. Additionally, the dependent claims 26-32 add further limitations not disclosed or suggested by Kelsey. For example, Claim 30 recites the composition of Claim 25, wherein the end groups are bonded to a terminal aryl group at a position selected from the group consisting of a meta position and an ortho position. Kelsey's substantially linear compositions do not disclose or suggest such a composition.

F. Claims 33-38

The Examiner rejected Claims 33-38 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,319,149 ("Bendler"). The Examiner stated that Bendler discloses a certain bisphenol with structural formulas that include those wherein the free valence bonds are in the meta or para positions. However, the end hydroxyl groups disclosed in Bendler are each at the para position of the respective biaryl unit. See e.g., Bendler, Col.1, ll.37-44, Claims 1-2. Bendler's reference to "the free valence bonds in Formula II are usually in the meta or para positions of A1 and A2 in relation to Y" is in reference to an "other unit" that makes up a copolycarbonate of that invention. That "other unit" is not a tetra-aryl bisphenol, such as that of two biaryl units connected by a spacer group. Rather, the "other unit" of Bendler's copolymer is described as having a "monocyclic divalent aromatic radical" connected by a bridging radical Y to another monocyclic divalent aromatic radical. See Bendler, Col.3, ll.36-55.

Applicants' Claims 33-39 recite a bisphenol of a certain formula where, among other things, a hydroxyl end group is bonded, at the meta or the ortho position, to the terminal aryl group of both of the two biaryl units. Bendler does not disclose or suggest such a composition.

G. Claims 6-7

The Examiner also rejected Claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,460,798 ("Klopfert") and apparently U.S. Patent No. 5,290,656 ("Uetani"). The Examiner concluded that Klopfert generally discloses asymmetrical bisphenols, such as 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane, and that Uetani uses such compositions to prepare a resin.

However, as set forth above, the "asymmetrical" bisphenols disclosed by Klopfert have just two aryl rings and the Klopfert reference to "asymmetrical" refers to different constituent groups on the two aryl rings. See, e.g., Klopfert, Abstract, Col.2, ll.3-17.

Applicants' Claims 6 and 7 (which depend on independent Claim 1) are directed to a different composition. As set forth in Claim 1, Applicants claim a bisphenol of a certain formula, generally summarized as an aryl unit with a hydroxyl group, a spacer group and a biaryl unit with a hydroxyl group. Nothing in Klopfert discloses or suggests such a composition.

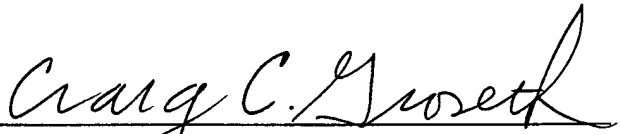
CONCLUSION

For all of the foregoing reasons, Applicants respectfully submit that all of the pending claims are in condition for allowance and respectfully request the same. If the Examiner believes that a telephone conference would facilitate the prosecution of this application, the undersigned attorney is available at the telephone number listed below.

Respectfully submitted,

Application Serial No. 10/692,970
Amendment dated February 24, 2005
Reply to Office Action of September 27, 2004

SHERIDAN ROSS P.C.

By: 

Craig C. Groeth
Registration No.31,713
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date: February 24, 2005